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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/716,248	11/17/2003	David M. Tucker	VCSre	5207

7590 12/15/2004

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EXAMINER	
GARBER, CHARLES D	
ART UNIT	PAPER NUMBER
2856	

DATE MAILED: 12/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/716,248	TUCKER ET AL.	
	Examiner	Art Unit	
	Charles D. Garber	2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 November 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 November 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Reissue Applications

The indicated allowability of claims 1-6 is withdrawn in view of the newly discovered reference(s) to Matthews, Jr. (US Patent 3,777,499) and Adkins et al. (US Patent 4,332,277). Rejections based on the newly cited reference(s) follow.

While the prior art in combination may have taught the individual elements including hydrostatic testing a pipeline (Bliss and Graves references) and the pipeline with pig launch end on the seafloor (Graves) and the pig receiver on the sea floor (Bliss) in the independent claims rejected in Office Action mailed 10/03/2002 the prior art did not expressly teach a pipeline with both ends on the seafloor which was critical to Examiner's arriving at a reason for allowance. Applicant's had argued in an interview on 10/18/2002 that neither Bliss nor Graves expressly taught both ends of the pipeline on the seafloor where pumping requirements were substantially reduced. In considering this reissue application Examiner has discovered prior art to Matthews noted above which teaches moving a pig through a pipeline with both ends on the seafloor and pumps at both ends to move the pig with greater ease.

Furthermore, Examiner has discovered prior art to Adkins that goes to the issue of patentability of depending claim 2.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to

be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 4, 5, 6 and 9, are rejected under 35 U.S.C. 103(a) as being unpatentable over Bliss et al. (US Patent 5,883,303) in view of Graves (US Patent 5,927,901) and Matthews, Jr. (US Patent 3,777,499).

Regarding claims 1, 4, 6 and 9, Bliss discloses a conventional method of testing a subsea pipeline between a pig launcher and receiver (equivalent to manifolds) including operating a pump to force liquid such as water behind the pig and move the pig from the pig launcher to the submerged pig receiver; and pumping water into said pipeline to a pressure for testing and monitoring the pressure to assure that there are no leaks in the pipeline (column 1 lines 36-53). Motion of the pig through the pipeline will inherently have the effect of cleaning the pipeline of any material larger than the clearance between the pig and the pipeline wall.

Bliss however does not teach the launcher is submerged and that a SV (or submerged or submersible vehicle) is used to operate the pump.

Graves teaches the use of an apparatus to drive a pig through a pipeline which has already been laid (column 3 lines 22-31) and a pump powered by a remotely operated vehicle 29 (column 4 lines 1-9), as an alternative to surface water source, to provide water flow to control the movement of the pig through the pipeline (column 1 lines 50-51, column 2 lines 35-41, 47-52).

It would have been obvious to one having ordinary skill in the art to use a submerged launcher in order to test a section of pipe that is already laid to employ a SV (or submerged or submersible vehicle) to operate a pump as an advantageous alternative to a surface source of water pressure.

Bliss also does not expressly teach the water may be seawater, however, Bliss refers to the water in the sea simply as water (not seawater) so the water of Bliss may be considered to be seawater.

Finally, the references do not teach the operation carried out while the pipeline is subsea, in other words, both ends being on the seafloor during the operation.

Matthews, Jr. teaches pump (not shown in figure 1 or item 34 shown in figure 3) at the bottom of the sea floor that pumps water out of the pipeline 31 in front of a pig being pushed from the launch end (abstract, column 4 lines 28-43 and column 5 lines 26-36). Matthews, Jr. explains that prior art methods only supply pressure behind the pig and that if pigging over many miles it may be difficult to provide suitable compressors and that pumping water from the other end may solve this problem (column 1 line 42 to column 2 line 18).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to pump fluid from a pipeline on the seafloor at the pig receiving end while pumping fluid in at the pig launch end because this will require less volume at either end making it easier to provide suitable compressors.

As for claim 5, Graves further teaches ROV 29 shown with a robotic arm for connecting conduit 12 (connected to pump 22) to said pipeline (see figure 1 and column 3 lines 25-30). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use an ROV (equivalent to SV) with a robot arm as an alternative to a diver 28. The diver may therefore avoid the hazardous environment of the seafloor for this task.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bliss et al. (US Patent 5,883,303) as modified by Graves (US Patent 5,927,901) and Matthews, Jr. (US Patent 3,777,499) and applied to claim 1 above and further in view of Adkins et al. (US Patent 4,332,277)

The references do not expressly teach the test pressure is read on a gauge mounted on a panel on said pig launcher/receiver.

Adkins teaches gauges 46 and 48 on a pig launcher which are read to determine the pressure on either side of pig 11 during high pressure test of the pipeline (figure 2, abstract, column 1 lines 32-41, column 3 lines 37-39).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a pressure gauge on the pig launcher in

order to read the high pressures and determine if the pipeline is able to withstand the intended high pressures.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bliss et al. (US Patent 5,883,303) as modified by Graves (US Patent 5,927,901) and Matthews, Jr. (US Patent 3,777,499) and applied to claim 1 above and further in view of Corbetta (US Patent 6,234,717).

The references lack the fill and test package carried by the SV. Corbetta teaches a Remotely Operated Vehicle (ROV) carrying a seal ring test system for pressure testing newly assembled sections of conduit (column 13 line 66 to column 14 line 11). It would have been obvious to one having ordinary skill in the art at the time the invention was made to carry a seal ring test system on an ROV so the pipe joint seals may be tested for integrity advantageously while the pipeline is still being assembled and more easily repaired.

Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bliss et al. (US Patent 5,883,303) in view of Graves (US Patent 5,927,901)

Bliss discloses a conventional method of testing a subsea pipeline between a pig launcher and receiver (equivalent to manifolds) including operating a pump to force liquid such as water behind the pig and move the pig from the pig launcher to the submerged pig receiver; and pumping water into said pipeline to a pressure for testing and monitoring the pressure to assure that there are no leaks in the pipeline (column 1 lines 36-53).

Bliss however does not teach the launcher is submerged and that a SV (or submerged or submersible vehicle) is used to operate the pump.

Graves teaches the use of an apparatus to drive a pig through a pipeline which has already been laid (column 3 lines 22-31) and a pump powered by a remotely operated vehicle 29 (column 4 lines 1-9), as an alternative to surface water source, to provide water flow to control the movement of the pig through the pipeline (column 1 lines 50-51, column 2 lines 35-41, 47-52).

It would have been obvious to one having ordinary skill in the art to use a submerged launcher in order to test a section of pipe that is already laid to employ a SV (or submerged or submersible vehicle) to operate a pump as an advantageous alternative to a surface source of water pressure.

Bliss also does not expressly teach the water may be seawater, however, Bliss refers to the water in the sea simply as water (not seawater) so the water of Bliss may be considered to be seawater.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles D. Garber whose telephone number is (571) 272-2194. The examiner can normally be reached on 6:30 a.m. to 3:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cdg